

PRINTERS & SCANNERS

FAQ

Q Why do I need to align the print heads on my inkjet printer, and how often should I do it?

A Inkjet printers create an image by firing many thousands of ink droplets at the page. An inkjet that prints at 1,200 dots per inch (dpi) could fire a droplet on the tip of a pin, but only if it's aimed correctly. Even though each print head is made to very high standards, an inkjet has multiple heads, so it's important to make sure that each is correctly lined up with the next. Aligning the heads helps to make sure that ink of each colour ends up exactly where it should be.

For printers with permanent print heads such as most Epson and Canon inkjets, run an alignment when new, and repeat if print quality declines later. If, like most HP and Lexmark printers, the print heads are replaced with the ink cartridge, we'd recommend performing an alignment each time you change a cartridge.

Simon Handby
Printers and audio expert

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CARDSCAN Personal

★★★★★

£139 inc VAT

If you have a stack of business cards sitting on your desk and you need their details transferred to your PC, CardScan's Personal can help. The kit comes with a small USB-powered business card scanner and the necessary software to convert scanned images into fields.

As is usual for this kind of software, the main screen looks dated and confusing, as there are lots of options spread all over the place. Fortunately, CardScan has placed most of the commonly used features on easily accessible buttons. The main one you need is the Scan button. This prepares the scanner, and all you need to do is push a card through it face-down. No processing is done at this point, so you can keep feeding cards through until your desk is clear.

If you're planning to categorise your contacts, it's best to sort your cards into the relevant categories first. You can then use the Batch processing option to put all your scans into a category automatically, which will save a lot of time later on.

Once you've finished scanning, all you have to do is click the Process button. This scours the scanned images and pulls out all the text. It typically took between three and seven seconds per card on our 1.6GHz Pentium M notebook, so it's quite rapid.

Results were the best we've seen from a card scanner, and there were very few mistakes. It coped with a variety of different cards, inserted at different angles and orientations. It also managed to determine correctly where each telephone number should be placed by reading the information on the card. Addresses, company names and actual names were generally formatted well, and the scanner even managed to cope with a card with a coffee stain on it.

SUMMARY

- ✓ Quick to scan
- ✓ Accurate results
- ✗ Software looks dated

BUSINESS CARD SCANNER SOFTWARE
Requires Windows 2000/XP/Vista, Pentium processor, 64MB RAM, 90MB disk space, USB port
SUPPLIER www.crc.uk.com
DETAILS www.cardscan.com



Inevitably there were problems, but they tended to be minor ones. One card we scanned used only lower-case characters, so we had to reformat the name and company name. Another card had a graphic for the first letter of the company, which the CardScan software couldn't read.

Fortunately, correcting errors is simple. A scan of the card appears for each record, so you can verify the information. Selecting a field, such as the company name, highlights the relevant part of the card, so it's easy to check the information. It's one of the easiest bits of software we've used to make changes. Finally, you need to select the Verified tick box to confirm the information is correct, so it makes it easier to see

which cards still need checking. The information can then be synchronised with Outlook, Lotus Notes, Act! or a range of other common applications.

PlusTek's OptiCard 820 is £50 cheaper, but it's harder to use, not as quick and isn't as accurate. For getting business cards on your PC, CardScan's Personal does an excellent job.

David Ludlow

Also consider...

SAMSUNG ML-2510

★★★★★

£61 inc VAT

PRICE CUT!



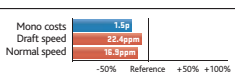
This grey laser printer may look a little drab, but



it's easy to set up and quick to install. It has a 250-sheet covered input tray and a single-sheet multipurpose feed slot, but it crumples envelopes.

The ML-2510 peaked at 22.7ppm when printing text, which is impressive for such an affordable printer. It's also cheap to run, with a cost per page of around 1.5p, yet produces high-quality text and mono graphics. It's a great compact budget mono laser printer.

MONO LASER PRINTER
1,200x600dpi resolution, 24ppm maximum speed, parallel and USB Hi-Speed interfaces
PART CODE ML-2510
SUPPLIER www.printerbase.co.uk
DETAILS www.samsung.co.uk
✓ Fast; affordable to buy and run; good print quality
FULL REVIEW Oct 2006



DELL Multifunction Laser Printer 1815dn

★★★★★

£335 inc VAT

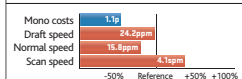


Dell's Multifunction Laser Printer 1815dn

can scan in colour and make black-and-white prints and copies. It has a standard network interface and can print on both sides of a sheet of paper automatically. It produces sharp scans, high-quality text documents and decent copies, though they can be a little too dark. It's fast, easy to use and cheap to run, so it's ideal for a busy office.



MONO LASER MULTIFUNCTION PERIPHERAL
600x600dpi print resolution, 600x1,200dpi scan resolution, USB and 10/100 Ethernet interfaces
SUPPLIER Dell 0879 075818
DETAILS www.dell.co.uk
✓ Fast; cheap to run
✗ Dark PostScript prints
FULL REVIEW Nov 2006



EPSON Stylus DX7000F



£103 inc VAT

Two of the laser multifunction peripherals (MFPs) in this month's Labs on page 98 have a fax modem, but the cheapest of those still costs twice as much as this inkjet MFP. The Stylus DX7000F can send and receive faxes and make colour scans but, unlike a mono laser MFP, it can also print and make copies in colour.

This MFP has a PictBridge port and memory card reader for making direct prints. With no screen, though, you have to print a proof sheet to select photographs from a card. This feature seems fairly pointless given that the DX7000F isn't built particularly for photographic and creative use; we'd rather Epson had fitted an automatic document feeder (ADF) that would enable easy sending of multiple-page faxes.

The DX7000F is pretty compact, and it's also easy to set up. Tipping up its hinged scanner lets you insert four separate ink

cartridges, after which you just need to install the software.

Epson's setup program lets you choose the components you want, or you can let the Easy install option add the necessary drivers and a couple of small applications. There's no prompt to align the printer's heads, though. As with most Epson inkjets, doing so is a manual process that involves selecting the best quality from patterns printed on a sheet of paper.

Even after we'd aligned the print heads, we weren't too impressed with the plain-paper print quality. Draft text was faint and stripy, while high-quality and slower print settings produced spidery outlines. For improved quality we performed our Draft speed test at the printer's Text setting. It finished at under four pages per minute (ppm). Though still a little furry, the Text & Image setting was just good enough for our letter test, which was completed at 2.2ppm.

This MFP comes with a set of ICC colour profiles, which should help to guarantee colour accuracy when printing a range of documents. Without them, the colours in our plain paper Normal speed test were solid but lifeless; but installing the ICC profiles made no noticeable difference to any of our results. Photos also looked a little dull and the DX7000F's Durabrite Ultra pigment inks didn't produce a high-gloss photo finish.

Although its printer may be disappointing, the DX7000F's scanner is much better. Its 1,200dpi optical resolution is plenty for most creative tasks, and it produced sharply focused images with accurate colours across the full range of dark and light shades in our test documents. It's not as quick as we'd like, taking



▲ This MFP's faint, banded draft text (left) is hard to read, and even at the Text & Image setting (right), outlines were untidy

18 seconds for a preview, and a fairly slow 44 seconds for an A4 scan at 300dpi. At 1,200dpi, our 6x4in photo scan took just over three minutes, which is much slower than we'd expect.

With a simple mono LCD screen and plenty of buttons, we expected the DX7000F to be easy to use without a PC. Basic operations are simple, but the buttons are marked with icons that don't offer much help. We gave up trying to change the copy quality; the default setting produced decent results in black only or colour, but it was slow – particularly in colour, where a single-page copy took two minutes and 25 seconds.

The DX7000F has a good scanner, but its print quality is fairly basic and, without an ADF, it isn't a convincing fax machine. For half the money you can buy Lexmark's X5470, which has similar features and a basic 10-sheet ADF.

Simon Handby

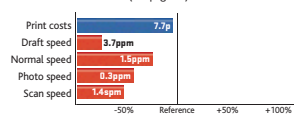
SUMMARY

- ✓ Good scanner
- ✗ Slow printer with basic quality
- ✗ No ADF or preview screen

INKJET MULTIFUNCTION PERIPHERAL

5,760x1,440dpi print resolution,
1,200x2,400dpi scan resolution, USB
Hi-Speed and PictBridge interfaces
PART CODE C11C676021
SUPPLIER www.amazon.co.uk
DETAILS www.epson.co.uk

PERFORMANCE (see page 58)



EPSON Perfection 4490 Photo



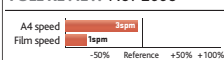
£128 inc VAT



Epson's Perfection 4490 Photo has a high optical resolution and comes with a decent software bundle. It can capture 35mm or 120mm medium format films, and has Kodak's Digital ICE dust reduction, though this didn't work well. Its focus is sharper than most flatbed scanners, and it produced great film scans.

Its price has dropped since our original review, making the 4490 excellent value.

FLATBED SCANNER
4,800x9,600dpi optical resolution, 48-bit colour depth, transparency adaptor, USB Hi-Speed interface
PART CODE B11B176022
SUPPLIER www.morecomputers.co.uk
DETAILS www.epson.co.uk
✓ Excellent film scanner
✗ Ineffective dust reduction
FULL REVIEW Nov 2006



KONICA MINOLTA Magicolor 2500W



£171 inc VAT

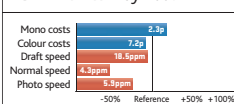


The Magicolor 2500W is one of the cheapest colour laser printers, but it gets the essentials right.

It's compact, easy to set up and use, and produces good-quality prints. With basic paper handling and no scope for upgrades, it isn't suitable for demanding users, but home users will find it great value.



COLOUR LASER PRINTER
600x600dpi resolution, 20ppm mono/5ppm colour maximum speed, USB Hi-Speed interface
PART CODE A00V021
SUPPLIER www.printerbase.co.uk
DETAILS www.konicaminolta.com
✓ Affordable, good print quality
✗ Basic paper handling
FULL REVIEW May 2007



HP Photosmart D7160



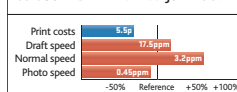
£83 inc VAT



HP's Photosmart D7160 costs less now than it did when it won our Best Buy award. It doesn't produce the best photo quality we've seen, but it's fast, affordable and easy to use. It's equally happy reeling off A4 pages of high-quality text or printing photos directly from a memory card.

We don't think it's worth paying extra for the touch-screen-equipped D7360 when the D7160 is this good.

A4 PHOTO INKJET Six-colour inkjet, 4,800x1,200dpi resolution, USB Hi-Speed and PictBridge USB interfaces
PART CODE Q7047B
SUPPLIER www.amazon.co.uk
DETAILS www.hp.co.uk
✓ Cheap to buy and run; easy to use
FULL REVIEW Jan 2007



CANON PIXMA iP1800

★★★★★

£31 inc VAT



Canon's PIXMA iP1800 is one of the most affordable inkjet printers you can buy. As you might expect, it's basic, but it gets all the essentials right.

Although it's one of the cheapest models in the PIXMA range, it can print regular plain-paper jobs or borderless photos on up to A4 paper.

The iP1800 doesn't look like a budget printer. It's made from jet-black plastics with matt and gloss finishes, with just a PIXMA badge for detailing. Though at first it seems that Canon has concealed the output tray, unfortunately there isn't one and printed pages fall on to the desk.

Fitting the printer's two ink cartridges requires you to lift the lid, which feels a little flimsy. The print head transport automatically moves to a cut-out section giving you access to the cartridge holders, but it can be fiddly to clip ink into place. Canon's setup program prompts you to perform a print head alignment, which, as with Epson's DX7000F reviewed on page 25, is a manual process that involves printing only one page. There are a couple of basic photo-printing applications that could be useful, but installing them is optional.

It's also up to you whether you install Canon's PIXMA Extended Survey Program software, which we haven't seen in previous PIXMA software bundles. We have seen similar applets – designed to report back anonymous usage information – included with other manufacturers' printers, but they use system resources and some internet bandwidth.



We're not convinced that they offer the consumer any real benefit.

Like other entry-level PIXMA printers, the iP1800 makes a wheezy noise when printing that sounds as though something in the head transport is scraping the paper. There's no smearing on the output, however, so it's just a minor irritation. At the Fast setting, text-only documents are ejected quickly enough that paper can slide across the desk and on to the floor, but the output remains surprisingly tidy on other, slower prints.

You might expect slow and basic printing from such a cheap inkjet, but the iP1800 is surprisingly competent. Text was solid at any quality setting, with even correspondence-quality text appearing at nearly 7ppm. Colours in graphics printed on plain paper were a little weak, looking slightly faded compared to output from the best inkjets. Freshly printed photos looked a little off-colour, but they improved once dry and, unusually for a budget printer, contained no obvious grain.

Spending £20 or so more on a printer will buy you more features and lower running costs, but if you want a decent printer for the smallest possible outlay, the PIXMA iP1800 is a good choice.

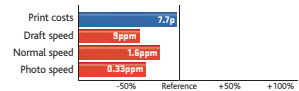
Simon Handby

SUMMARY

- ✓ Very affordable
- ✓ Decent all-round print quality
- ✗ Very basic

INKJET PRINTER 4,800x1,200dpi resolution, USB Hi-Speed interface
PART CODE 1855B008AA
SUPPLIER www.morecomputers.co.uk
DETAILS www.canon.co.uk

PERFORMANCE (see page 58)



CHOOSING AN... Inkjet Printer

Follow the steps to find your ideal specs

PAGE SIZE: A4

QUOTED SPEED: 18ppm mono, 12ppm colour

PRICE PER PAGE: 8p text and graphics

RESOLUTION: 4,800x1,200dpi

INK COLOURS: Four in two tanks

FEATURES:

Recommended minimum in grey

1 You can get a decent inkjet for under £40. With the minimum spec shown above, high-quality printing is possible, but slow. The actual print speed of inkjets can be half the quoted (maximum) speed on text documents, and even slower when printing graphics. Budget inkjets such as these are designed only for light use and can be expensive to run.

2 Spending £60 will get you a much more capable printer that is either faster and better built or better at reproducing photos. If your priority is documents, you'll want double the minimum speed and half the print costs of the sub-£40 printer. Look for inkjets that can handle all your office media, including envelopes and labels.

3 If your priority is photos, speed is less important. Instead, choose a printer that can reproduce subtle tones well. Only hands-on testing, not specifications, will tell you this, so check our reviews. Borderless printing (right up to the edge of the paper) should also be possible. Pay particular attention to running costs: photos use three times as much ink as regular colour documents.

4 Heavy-duty office inkjets can cost up to £1,000 and their build quality is improving. They use large, individually replaceable ink tanks which can cut running costs. Printers with automatic duplex (double-sided) printing or A3 capability are becoming more affordable.

5 Pricier photo printers allow you to print digital photos by plugging memory cards straight into the printer – no PC is required. An LCD preview screen gives you more control over this. Many inkjet printers now have a PictBridge USB port, which can be used to print images directly from most digital cameras.

6 If you're really serious about photography, consider buying an inkjet that can print up to A3+ without borders. The best produce prints nearly as good as those from a professional lab.

Also consider...

CANON PIXMA iP4300

★★★★★

£63 inc VAT

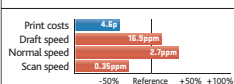


If you need a budget printer, Canon's PIXMA

iP4300 shows that you don't need to compromise on quality. It has two paper trays, and can print on coated CDs or both sides of each sheet of paper. It's fast to produce text, colour graphics and photos. Print quality is high, with no trace of grain, though photos are a little bit oversaturated. Best of all, it has very low running costs.



INKJET PRINTER Five-colour inkjet, 9,600x2,400dpi maximum resolution, USB and PictBridge USB interfaces
PART CODE 1438B008AA
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk
✓ Inexpensive; fast; flexible; stylish; high-quality results
FULL REVIEW Dec 2006



CANON PIXMA MP160

★★★★★

£44 inc VAT



The PIXMA MP160 costs less than many budget inkjet printers, and it can also make good-quality scans and copies. It's compact and attractive and not too tricky to set up. Unusually for such an affordable printer, it has low running costs if you use Canon's high-capacity ink cartridges. It's great value if you just want a basic multifunction peripheral.



FOUR-COLOUR INKJET MFP 4,800x1,200dpi print resolution, 600x1,200dpi scan resolution, USB Hi-Speed and PictBridge USB interfaces
PART CODE 1447B008AA
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk
✓ Affordable; good results
✗ No card reader
FULL REVIEW Jan 2007

